AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A reconfigurable~~An~~ RF antenna array comprising:

a plurality of ~~small~~ antenna elements spatially distributed over an array aperture;

wherein at least ~~some plurality~~two of said antenna elements each comprise at least one driven component, and at least one of said antenna elements is a controlled parasitic antenna element that has a largest dimension of about one-half wavelength at the lowest frequency of its operational bandwidth and contains within its radiating aperture~~each including~~ (a) at least one driven~~active~~ component, ~~and~~ (b) at least one ~~reactively controlled~~ parasitic component ~~co-located with said active component within an antenna element radiating aperture having a largest dimension of about one-half wavelength at the lowest frequency of its operational bandwidth~~, and (c) at least one controllably variable reactance load connected to said at least one parasitic component; and

an array controller connected to ~~control at least~~ said at least one variable reactance load~~s thereby~~ to control the electromagnetic properties of said at least one controlled parasitic antenna element and thereby to control, at least in part, a predetermined characteristic of said array.

2. (Currently Amended) An array as in claim 1 wherein said array controller is also connected to each said driven component to apply weighting to~~control~~ RF signals

being fed to/from said drivenactive components thereby to control, at least in part, a predetermined characteristic of said array.

3. (Currently Amended) A method for controlling at least one predetermined characteristic of a reconfigurablean RF antenna array, said method comprising:

arranging a plurality of small antenna elements spatially distributed over an array aperture;

whereinincluding in each of at least twosome plurality of said antenna elements each comprise at least one driven component, and at least one of said antenna elements is a controlled parasitic antenna element that has a largest dimension of about one-half wavelength at the lowest frequency of its operational bandwidth and contains within its radiating aperture (a) at least one drivenactive component, and (b) at least one reactively controlled parasitic component co-located with said active component within an antenna element radiating aperture having a largest dimension of about one-half wavelength at the lowest frequency of its operational bandwidth, and (c) at least one controllably variable reactance load connected to said at least one parasitic component; and

controlling changes in at least said at least one variable reactance loads thereby to control the electromagnetic properties of said at least one controlled parasitic antenna element and thereby control, at least in part, a predetermined characteristic of said array.

4. (Currently Amended) A method as in claim 3 further comprising:

controlling RF signals being fed to/from said activedriven components thereby to control, at least in part, a predetermined characteristic of said array.

5. (Currently Amended) A method for providing a reconfigurable RF antenna array, said method comprising:

co-locating ~~a~~at least one reactively-controlled parasitic component with at least one driven component within an antenna element radiating aperture having a largest dimension of about one-half wavelength at the lowest frequency of its operational bandwidth for at least one~~of each~~ of plural radiating~~active small~~ antenna apertures having a driven component~~components~~ in a phased array of radiating antenna element apertures; and

controlling said parasitic components by changing the value of a reactance connected thereto to change operational characteristics of the corresponding co-located driven~~active~~ and parasitic antenna components for said at least one of plural radiating apertures in said array to control, at least in part, a predetermined characteristic of said array.

6. (Previously Presented) A method as in claim 5 wherein said parasitic components are controlled by either switching reactive load values in and out that are connected to the parasitic components or by applying control voltages to variable reactance circuits.

7. (Previously Presented) A method as in claim 6 wherein at least some of said variable reactance circuits include a varactor.

8. (Previously Presented) A method as in claim 5 wherein parasitic components are controlled by use of a feedback control subsystem that adjusts RF properties of the parasitic components based on an observed metric.

9. (Previously Presented) A method as in claim 5 wherein the parasitic components are controlled to effect changes in at least one of the group of characteristics consisting of directivity, frequency tuning, instantaneous bandwidth, polarization and radar cross section.

10. (Previously Presented) An array as in claim 1 wherein:

said array controller is configured and connected to independently control different antenna parasitic components.

11. (Previously Presented) A method as in claim 3 wherein:

said controlling step includes independent control of different antenna parasitic components.

12. (Previously Presented) A method as in claim 5 wherein:

said controlling step includes independent control of different antenna parasitic components.

13. (Currently Amended) An array as in claim 1 wherein:

said array controller is configured and connected to control the RF/electrical properties of the parasitic components as well as the phase of associated antenna ~~active~~driven components thereby achieving control over at least an array beam pointing angle.

14. (Currently Amended) A method as in claim 3 wherein:

said controlling step includes controlling the RF/electrical properties of parasitic components as well as the phase of associated antenna ~~active~~driven components thereby achieving control over at least an array beam pointing angle.

15. (Currently Amended) A method as in claim 5 wherein:

said controlling step includes controlling the RF/electrical properties of the at least one parasitic components as well as the phase of associated antenna ~~active~~driven components thereby achieving control over at least an array beam pointing angle.

16. (Previously Presented) An array as in claim 1 wherein:

said array controller includes a digital beamformer circuit from which information is extracted to at least assist in control of said parasitic components.

17. (Currently Amended) An array as in claim 16 wherein:

said digital beamformer circuit also provides phase control for said antenna ~~active~~driven components.

18. (Previously Presented) A method as in claim 3 wherein:

said controlling step includes at least some digital beamformer control of said parasitic components.

19. (Currently Amended) A method as in claim 18 wherein:

said controlling step also includes at least some digital beamformer control of the phase of said antenna ~~active~~driven components.

20. (Previously Presented) A method as in claim 5 wherein:

said controlling step includes at least some digital beamformer control of said parasitic components.

21. (Currently Amended) A method as in claim 20 wherein:

said controlling step also includes at least some digital beamformer control of the phase of antenna ~~active~~driven components.

22. (Previously Presented) An RF antenna array as in claim 1 wherein sub-sets of said antenna elements are connected for common control and thus form respective sub-arrays.

23. (Previously Presented) A method as in claim 3 wherein sub-sets of said antenna elements are connected for common control and thus form respective sub-arrays.

24. (New) The reconfigurable RF antenna array as in claim 1 wherein a phase center of said at least one controlled parasitic antenna element is controlled to vary as a function of controlled changes in the variable reactance load connected to said at least one parasitic component of that controlled parasitic antenna element.

25. (New) The method as in claim 3 wherein a phase center of said at least one controlled parasitic antenna element is controlled to vary as a function of controlled changes in the variable reactance load connected to said at least one parasitic component of that controlled parasitic antenna element.

26. (New) The method as in claim 5 wherein a phase center of said at least one controlled parasitic antenna element is controlled to vary as a function of controlled

changes in the variable reactance load connected to said at least one parasitic component of that controlled parasitic antenna element.